

FIGURE 1A

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSI
YQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMMENG
IKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAA
GAEQEVEKFTKRLVKVTKQHNDECKHLLSLMGI PYLDAP
SEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLT
ASEAKKLPIQEFHLSRIQLQELGLNQE QFVDLCILLGSDY
CESIRGIGPKRAVDLIQKHKSIEEIVRRDPNKYPVPEN
WLHKEAHQLFLEPEVLDPEVELKWSEPNEEELIKFMCG
EKQFSEERIRSGVKRLSKSRQGSTQGRLDFFFKVTGSLS
SAKRKEPEPKGSTKKKAKTGAAGKFKRGK

FIGURE 1B

ATGGGAATTC	AAGGCCTGGC	CAAACTAATT	GCTGATGTGG	CCCCCAGTGC	CATCCGGGAG
AATGACATCA	AGAGCTAETT	TGGCCGTAAG	GTGGCCATTG	ATGCCTCTAT	GAGCATTAT
CAGTTCCTGA	TTGCTGTTCG	CCAGGGTGGG	GATGTGCTGC	AGAATGAGGA	GGGTGAGACC
ACCAGCCACC	TGATGGGCAT	GTTCTACCGC	ACCATTGCA	TGATGGAGAA	CGGCATCAAG
CCCGTGTATG	TCTTTGATGG	CAAGCCGCCA	CAGCTCAAGT	CAGGCGAGCT	GGCCAAACGC
AGTGAGCGGC	GGGCTGAGGC	AGAGAAGCAG	CTGCAGCAGG	CTCAGGCTGC	TGGGGCCGAG
CAGGAGGTGG	AAAAATTAC	TAAGCGGCTG	GTGAAGGTCA	CTAAGCAGCA	CAATGATGAG
TGCAAACATC	TGCTGAGCCT	CATGGGCATC	CCTTATCTTG	ATGCACCCAG	TGAGGCAGAG
GCCAGCTGTG	CTGCCCTGGT	GAAGGCTGGC	AAAGTCTATG	CTGCGGCTAC	CGAGGACATG
GACTGCCTCA	CCTTCGGCAG	CCCTGTGCTA	ATGCGACACC	TGACTGCCAG	TGAAGCCAAA
AAGCTGCCAA	TCCAGGAATT	CCACCTGAGC	CGGATTCTGC	AGGAGCTGGG	CCTGAACCCAG
GAACAGTTTG	TGGATCTGTG	CATCCTGCTA	GGCAGTGACT	ACTGTGAGAG	TATCCGGGGT
ATTGGGCCCC	AGCGGGCTGT	GGACCTCATC	CAGAAGCACA	AGAGCATCGA	GGAGATCGTG
CGGCCACTTG	ACCCCAACAA	GTACCCTGTG	CCAGAAAATT	GGCTCCACAA	GGAGGCTCAC
CAGCTCTTCT	TGGAACCTGA	GGTGCTGGAC	CCAGAGTCTG	TGGAGCTGAA	GTGGAGCGAG
CCAAATGAAG	AAGAGCTGAT	CAAGTTCATG	TGTGGTGAAA	AGCAGTTCTC	TGAGGAGCGA
ATCCGCAGTG	GGGTCAAGAG	GCTGAGTAAG	AGCCGCCAAG	GCAGCACCCA	GGGCCGCCTG
GATGATTTCT	TCAAGGTGAC	CGGCTCACTC	TCTTCAGCTA	AGCGCAAGGA	GCCAGAACCC
AAGGATCCA	CTAAGAAGAA	GGCAAAGACT	GGGCGAGCAG	GGAAGTTTAA	AAGGGGAAAA
TAAA					

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FIGURE 2A

MGIHGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIY
QFLIAVRQGGDVLQNEEGETTSLMGMYRTIRMENGIKPV
YVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQEAGMEEE
VEKFTKRLVKVTKQHNDCKHLLSLMGIPYLDAPSEAEAS
CAALAKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKL
PIQEFHLSRVLQELGLNQEQFVDLCILLGSDYCESIRGIG
AKRAVDLIQKHKSIEEIVRRLDPSKYPVPENWLHKEAQQL
FLEPEVVDPESELKWSEPNEEELVKFMCGEKQFSEERIR
SGVKRLSKSRQGSTQGRLLDDFFKVTGSLSSAKRKEPEPKG
PAKKKAKTGGAGKFRRGK

FIGURE 2B

ATGGGAATTC ACGGCCTTGC CAAACTAATT GCTGATGTGG CCCCCAGTGC CATCCGTGAG
AATGACATCA AGAGCTACTT TGGTCGTAAA GTGGCCATCG ATGCCTCCAT GAGCATCTAC
CAGTTCCCTGA TTGCTGTTTC TCAGGGTGGG GATGTGCTGC AGAACGAGGA GGGTGAGACC
ACCAGCCTGA TGGGCATGTT ATGGCAAACC ATCCGCATGG AGAATGGCAT CAAGCCTGTG
TACGTCTTTG ATGGCAAACC ACCACAGCTG AAGTCAGGCG AGCTGGCCAA CGCGAGTGAG
AGGCGCGCCG AGGCTGAGAA GCAACTGCAG CAGGCTCAGG AGGCTGGGAT GGAGGAGGAG
GTGGAGAAGT TCACCAAGAG GCTCGTGAAG GTCACCAAGC AACACAATGA TGAGTGCAAA
CACCTCGTGA GCCTCATGGG CATCCCTTAC CTTGATGCAC CCAGCGAGGC AGAGGCCAGC
TGTGCTGAGC TGGCAAAGGC TGGCAAAGTC TATGCTGCGG CCACGGAGGA CATGGACTGC
CTCACTTTTG GCAGCCCCGT GCTAATGCGA CACTTAACTG CCAGTGAGGC CAAGAAGCTG
CCCATCCAAG AGTTCCATCT GAGCCGCGTC CTGCAGGAGC TGGGTCTGAA CCAGGAGCAG
TTTGTGGATC TGTGCATCCT GCTGGGTAGC GACTACTGCG AGAGCATCCG TGGCATTGGC
GCCAAGCGGG CTGTGGATCT CATCCAGAAA CATAAGAGCA TCGAGGAGAT CGTGAGGCGG
CTGGACCCCA GCAAGTACCC CGTTCCAGAG AACTGGCTCC ACAAGGAAGC CCAGCAGCTC
TTCCTGGAGC CAGAAGTAGT GGACCCAGAG TCTGTGGAGC TGAAGTGGAG CGAGCCAAAT
GAAGAAGAGT TGGTCAAATT TATGTGTGGT GAAAAGCAGT TTTCTGAAGA GCGAATTCGC
AGTGGGGTCA AGCGGCTGAG TAAGAGCCGC CAGGGCAGCA CCCAGGGACG CCTCGATGAT
TTCTTCAAGG TGACAGGCTC ACTCTCCTCA GCTAAGCGCA AGGAGCCAGA ACCCAAGGGG
CCTGCTAAGA AGAAAGCAAA GACTGGGGGA GCGGGGAAGT TCCGAAGGGG AAAATAAACC
TGTCTTCCC CTCCACTGTC CTTGACCCCA GGCTGTCTAT CTGTTTTGTA CCCTGCGCTG
CAGCACATCC CTCTTGTCCC TCGTCTTGAG GAGAGTTCAT TGCTTCCAGC GTCGCTTC
AGAGCTTTCC CTCTCTTGAC CCTGTGGCAG GAAGGCCGTA GCTCTGCTTT TTCTCATTTT
TAGCTCAGGA AAGATGTCAG GCTCAAACCA CTTCTCAGGT TAATGGACAC TGTAAGTATT
GTTCTGTGCA ACTGCGAGCA ATGTCTTAAG GAAGAAGAAG ATAAAGCCGG GAGCGAGGCT
GGAGATAGTT TCCCAGCTGG CCAGCTGGTG GAGGAGAGGT GACTAGAACC TGACTGACTA
CTGCTCCTTC TAATTTCACT GTCCCTGAAA GATGCCCATC AGCCTGGGAT TCGCTGATGG
AAGAAGTACA AAGAGACGCA GCAGAGAGAA GTCTGGCTGA CAACAGATTT AGTACTGACC
AGCTGATTTT TGTGGGCAGA AATTTGAACT TGCTGCCTGC TGAGTCCAGT AGTTGTGCAG
GGAGTGAGAT GGCAGTGTTT AAGTTTTGAT TTGTAGTTTT TTGTTTTTGT CTCTCCCTC
TCCAGTGTTG GGGATTGACC CCAGGGCAAA GGCATTAAGT GTGCCACTGA CCTGTGCCCTC
CAAGTGATGT TCTGACAGCC TTTCTGAGGC AATCAATTGA ATTGAGGTTT TGGGAGAAGA
AACTGTTGTT CATAGGCTAT TTCTATTTTA AAAGATGTGA AGAGAAAAAA AAAACAATAA
AATTATAAAA

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FIGURE 3A

MGIKGLNAIISEHVPSAIRKSDIKSFFGRKVAIDASMSLYQ
FLIAVRQQDGGQLTNEAGETTSHLMGMFYRTLRLMIDNGIKP
CYVFDGKPPDLKSHELTKRSSRRVETEKKLAEATTELEKMK
QERRLVKVSKEHNEEAQKLLGLMGIPYIIAPTEAEAQCAEL
AKKGKVYAAASEMDTLCYRTPFLLRHILTFSEAKKEPIHEI
DTELVLRLGLDLTIEQFVDLCIMLGCDYCESIRGVGPVTALK
LIKTHGSIEKIVEFIESGESNNTKWKIPEDWPYKQARMLFL
DPEVIDGNEINLKWSPPEKEKELIEYLCDDKKFSEERVKSGI
SRLKKGLKSGIQGRLDGFFQVVPKTKEQLAAAKRAQENKK
LNKNKNKVTKGR

FIGURE 3B

ATGGGTATTA AAGGTTTGAA TGCAATTATA TCGGAACATG TTCCCTCTGC TATCAGGAAA
AGCGATATCA AGAGCTTTTT TGGCAGAAAG GTTGCCATCG ATGCCTCTAT GTCTCTATAT
CAGTTTTTAA TTGCTGTAAG ACAGCAAGAC GGTGGGCAGT TGACCAATGA AGCCGGTGAA
ACAACGTCAC ACTTGATGGG TATGTTTTAT AGGACACTGA GAATGATTGA TAACGGTATC
AAGCCTTGTT ATGTCTTCGA CGGCAAACCT CCAGCTTTGA AATCTCATGA GTTGACAAAAG
CGGTCTTCAA GAAGGTGGA AACAGAAAAA AAAGTGGCAG AGGCAACAAC AGAATTGGAA
AAGATGAAGC AAGAAAGAAG ATTGTTGAAG GTCTCAAAAG AGCATAATGA AGAAGCCCAA
AAATTACTAG GACTAATGGG AATCCCATAT ATAATAGCGC CAACGGAAGC TGAGGCTCAA
TGTCCTGAGT TGGCAAAGAA GGGAAAGGTG TATGCCGCGC CAAGTGAAGA TATGGACACA
CTCTGTTATA GAACACCCCTT CTTGTTGAGA CATTTGACTT TTTCAGAGGC CAAGAAGGAA
CCGATTACAG AAATAGATAC TGAATTAGTT TTGAGAGGAC TCGACTTGAC AATAGAGCAG
TTTGTGATC TTTGCATAAT GCTTGGTTGT GACTACTGTG AAAGCATCAG AGGTGTTGGT
CCAGTGACAG CCTTAAATTT GATAAAAACG CATGGATCCA TCGAAAAAAT CGTGGAGTTT
ATTGAATCTG GGGAGTCAA CAACACTAAA TGGAAAATCC CAGAAGACTG GCCTTACAAA
CAAGCAAGAA TGCTGTTTCT TGACCCTGAA GTTATAGATG GTAACGAAAT AAAGTTGAAA
TGGTCGCCAC CAAAGGAGAA GGAACCTTATC GAGTATTTAT GTGATGATAA GAAATTCAGT
GAAGAAAGAG TTAAATCTGG TATATCAAGA TTGAAAAAAG GCTTGAAATC TGGCATTGAG
GGTAGGTTAG ATGGGTTCTT CCAAGTGGTG CTAAGACAA AGGAACAGCT GGCTGCTGCG
GCCAAAAGAG CACAAGAAAA TAAAAAATTG AACAAAAATA AGAATAAAGT CACAAAGGGA
AGAAGATGA

FIGURE 4A

MGVHSFWDIAGPTARFVRLESLEDKRMVAVDASIWIYQFLKA
VRDQEGNAVKNSHITGFFRRICKLLYFGIRPVFVFDGGVPV
LKRETIQRKERRQKRESAKSTARKLQQMKDKRDSDEVT
MDMIKEVQELLSRFGIPYITAPMEAEAQCAELLQLNLVDGI
ITDDSDVFLFGGTKIYKNMFHEKNYVEFYDAESILKLLGLD
RKNMIELAQLLGSYTNGLKGMGPVSSIEVIAEFGNLKNFK
DWYNNQFDRKQETENKFEKDLRKKLVNNEIILDDDFPSV
MVDAYMRPEVDHDTTPFVWGVPLDMLRSFMKTQLGWPHE
KSDEILIPLIRDVNKRKKKGKQKRINEFFPREYISGDKKLN
TSKRISTATGKLKKRKM

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FIGURE 4B

ATGGGTGTGC ATTCAATTTTG GGATATTGCA GGTCTACGG CAAGACCGGT CAGGCTGGAA
TCCTTGGAAG ATAAGAGAAT GGCAGTAGAT GCCTCCATTT GGATATATCA GTTTTTGAAA
GCTGTCCGTG ATCAGGAGGG GAATGCAGTG AAGAATTCTC ATATTACTGG GTTCTTTAGA
AGAATTTGTA AGCTATTATA CTTTGGCATT AGGCCGGTAT TCGTCTTTGA TGGTGGTGTG
CCCGTATTGA AAAGGGGAAAC AATACGGCAG AGGAAAGAAA GAAGACAGGG AAAACGAGAG
AGTGCGAAAT CCACCGCTAG GAAGCTGCAA CAACAGATGA AGGATAAAAG AGATTCCGGAT
GAGGTAAC TAAGATATGAT CAAAGAAGTG CAAGAATTAC TATCGAGGTT TGGAATCCCC
TATATCACTG CGCCTATGGA AGCTGAAGCA CAGTGTGCGG AATTGTTACA ACTAAACCTT
GTCCATGGTA TAATTACCGA TGACAGTGAT GTTTTCCTAT TTGGAGGTAC AAAGATCTAC
AAAAATATGT TCCACGAAAA GAACTATGTT GAATTTTATG ATGCGGAATC TATTTTAAAA
TTATTGGGCT TGGATAGAAA GAATATGATT GAGTTGGCAC AGCTTTTAGG GAGCGATTAC
ACGAATGGAT TGAAGGGTAT GGGTCCCCTT TCAAGCATTG AAGTGATTGC AGAATTGGGA
AACCTAAAAA ATTTTAAAGA CTGGTATAAT AATGGGCAGT TTGATAAACG TAAGCAAGAA
ACGGAATAATA AATTTGAAAA AGACCTGAGA AAAAACTGG TAAATAACGA AATTATCTTA
GATGATGATT TTCCTAGCGT CATGGTTTAT GATGCGTATA TGAGACCAGA AGTCGATCAC
GATACCACGC CGTTTGTTTG GGGGGTACCA GATCTCGATA TGCTTCGTTT ATTCATGAAG
ACTCAACTAG GTTGGCCACA CGAAAAGTCT GATGAAATTC TCATTCCCTT AATTAGAGAT
GTTAATAAAC GCAAAAAGAA GGGGAAGCAA AAAAGGATTA ATGAATTTTT TCCAAGGGAG
TACATATCTG GTGATAAGAA GCTCAATACA AGTAAGAGAA TTTCAACCGC AACAGGTAAA
CTAAAGAAAA GAAAGATGTA A

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TCGCGGAAGCTGTGAAGCGGACGACGAGACACCGGGCTAGCCCGGCTTGGCCATTCTGCTCCGACATTCCTATTGTGCAATTGCTCTGTGCTACC
 ATG GGA ATT CAC GGC CTT GCC AAA CTA ATT GCT GAT GTG GCC CCC AGT GCC ATC CGT GAG AAT GAC ATC AAG AGC TAC
 M G I H G L A K L I A D V A P S A I K S Y F G R K V
 TTT GGT CGC AAA GTG GCC ATC GAT GCC TCC ATG AGC ATC TAC CAG TTC CTG ATT GCT GTT CGT CAG GGT GGG GAT GTG
 A I D A S R E N D I M S I Y Q F L I A V R Q G G D V
 CTG CAG AAC GAG GGT GAG ACC ACC AGC CTG ATG GGC ATG TTC TAC CGT ACC ATC CGC ATG GAG AAT GGC ATC AAG
 L Q N E E G E T T S L M G M F Y R T I R M E N G I K
 CCT GTG TAC GTC TTT GAT GGC AAA CCA CCA CAG CTG AAG TCA GGC GAG CTG GCC AAG CGC AGT GAG AGG CGC GCC GAG
 P V Y V F D G K P P Q L K S G E L A K R S E R R A E
 GCT GAG AAG CAA CTG CAG GCT CAG GAG GCT GGG ATG GAG GAG GTG GAG AAG TTC ACC AAG AGG CTC GTG AAG
 A E K Q L Q Q A Q E A G M E E V E K F T K R L V K
 GTC ACC AAG CAA CAC AAT GAT GAG TGC AAA CAC CTG CTG AGC CTC ATG GGC ATC CCT TAC CTT GAT GCA CCC AGC GAG
 V T K Q H N D E C K H L L S L M G I P Y L D A P S E
 GCA GAG GCC AGC TGT GCT GCC AAG GCT GGC AAA GTC TAT GCT GCG GCC ACG GAG GAC ATG GAC TGC CTC ACT
 A E A S C A A L A K A G K V Y A A A T E D M D C L T
 TTT GGC AGC CCC GTG CTA ATG CGA CAC TTA ACT GCC AGT GAG GCC AAG AAG CTG CCC ATC CAA GAG TTC CAT CTG AGC
 F G S P V L M R H L T A S E A K K L P I Q E F H L S
 CGC GTC CTG CAG GAG CTG GGT CTG AAC CAG GAG CAG TTT GTG GAT CTG TGC ATC CTG CTG GGT AGC GAC TAC TGC GAG
 R V L Q E L G L N Q E Q F V D L C I L L G S D Y C E
 AGC ATC CGT GGC ATT GGC GCC AAG CGG GCT GTG GAT CTC ATC CAG AAA CAT AAG AGC ATC GAG GAG ATC GTG AGG CGG
 S I R G I G A K R A V D L I Q K H K S I E E I V R R
 CTG GAC CCC AGC AAG TAC CCC GTT CCA GAG AAC TGG CTC CAC AAG GAA GCC CAG CAG CTC TTC CTG GAG CCA GAA GTA
 L D P S K Y P V P E N W L H K E A Q Q L F L E P E V

FIG. 5A

GTG GAC CCA GAG TCT GTG GAG CTG AAG TGG AGC GAG CCA AAT GAA GAA GAG TTG GTC AAA TTT ATG TGT GGT GAA AAG
V D P E S V E L K W S E P N E E L V K F M C G E K

CAG TTT TCT GAA GAG CGA ATT CGC AGT GGG GTC AAG CGG CTG AGT AAG AGC CGC CAG GGC AGC ACC CAG GGA CGC CTC
Q F S E E R I R S G V K R L S K S R Q G S T Q G R L

GAT GAT TTC AAG GTG ACA GGC TCA CTC TCC TCA GCT AAG CGC AAG GAG CCA GAA CCC AAG GGC CCT GCT AAG AAG
D D F F K V T G S L S S A K R K E P E P K G P A K K

AAA GCA AAG ACT GGG GGA GCG GGG AAG TTC CGA AGG GGA AAA TAA ACC TGT CCT TCC CCT CCA CTG TCC TTG ACC CCA
K A K T G G A G K F R G K *

GGC TGT CTA TCT TTG TAC CCT CGG CTG CAG CAC ATC CCT CTT GTC CCT CGT GAG GAG AGT TCA TTG CTT CCA

GGG CTG CCC TTC AGA GCT TTC CCT CTC TTG ACC CTG TGG CAG GAA GGC CGT AGC TCT GCT TTT TCT CAT TTT TAG CTC

AGG AAA GAT GTC AGG CTC AAA CCA CTT CTC AGG TTA ATG GAC ACT GTA GTC ATT GTT CTG TGC AAC TGC GAG CAA TGT

CTT AAG GAA GAA GAT AAA GCC GGG AGC GAG GCT GGA GAT AGT TTC CCA GCT GGC CAG CTG GTG GAG GAG AGG TGA

CTA GAA CCT GAC TGA CTA CTG CTC CTT CTA ATT TCA CTG TCC CTG AAA GAT GCC CAT CAG CCT GGG ATT CGC TGA TGG

AAG AAC TGC AAA GAG ACG CAG CAG AGA GAA GTC TGG CTG ACA GAT TTA GTA CTG ACC AGC TGA TTT TTG TGG GCA

GAA ATT TGA ACT TGC TGC CTG CTG AGT CCA GTA GTT GTG CAG GGA GTG AGA TGG CAG TGT TTA AGT TTT GAT TTG TAG

TTT TTT GTT TTT GTC TCT CCC CTC TCC AGT GTT GGG GAT TGA CCC CAG GGC AAA GGC ATT AAG TGT GCC ACT GAC CTG

TGC CTC CAA GTG ATG TTC TGA CAG CCT TTC TGA GGC AAT CAA TTG AAT TGA GGT TTT GGG AGA AGA AAC TGT TGT TCA

TAG GCT ATT TCT ATT TTA AAA GAT GTG AAG AGA AAA AAA CAA TAA AAT TAT AAA A

FIG. 5B

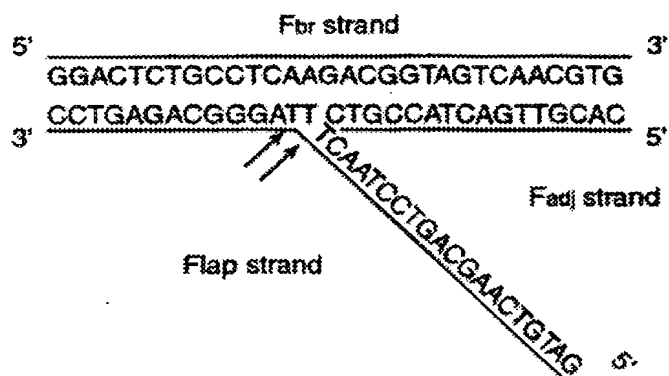


FIG. 6

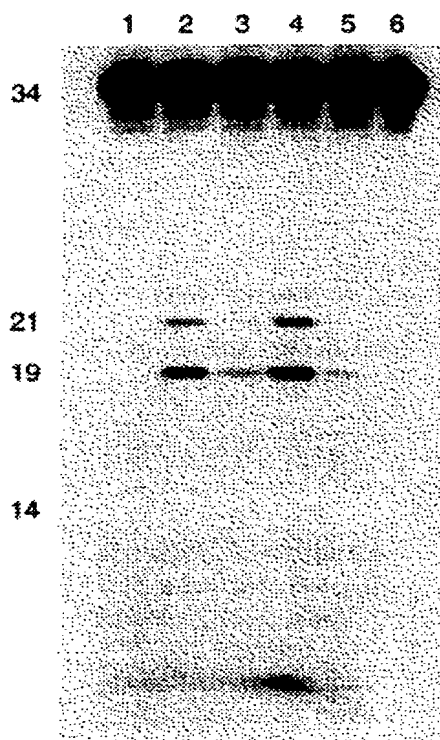
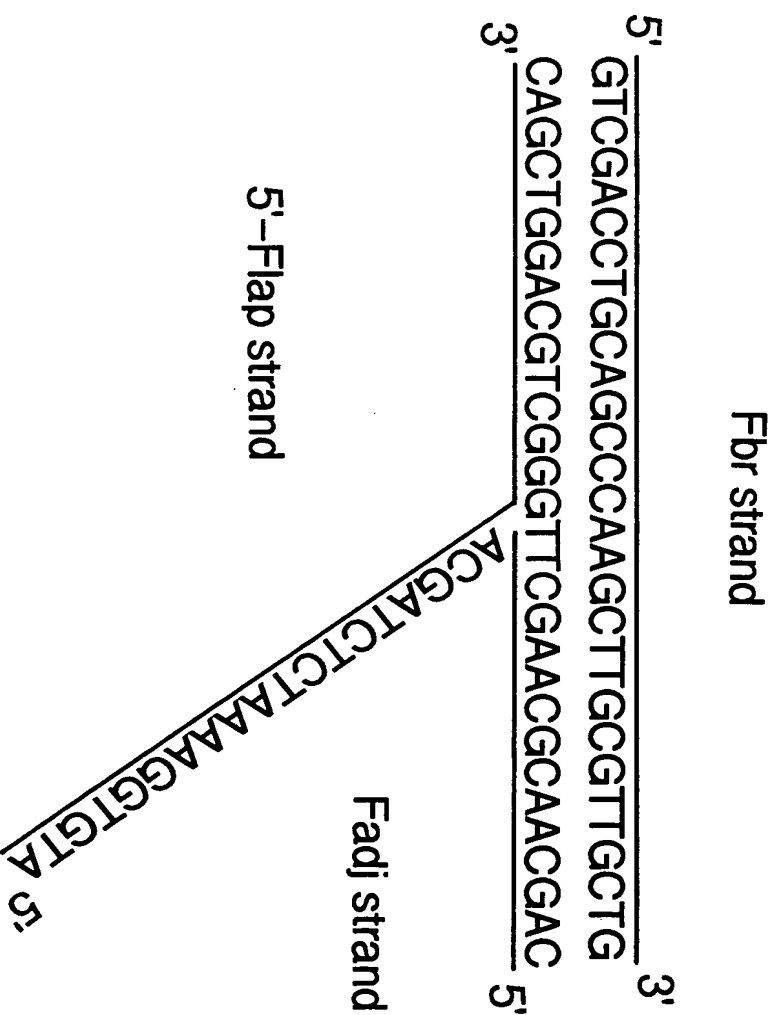


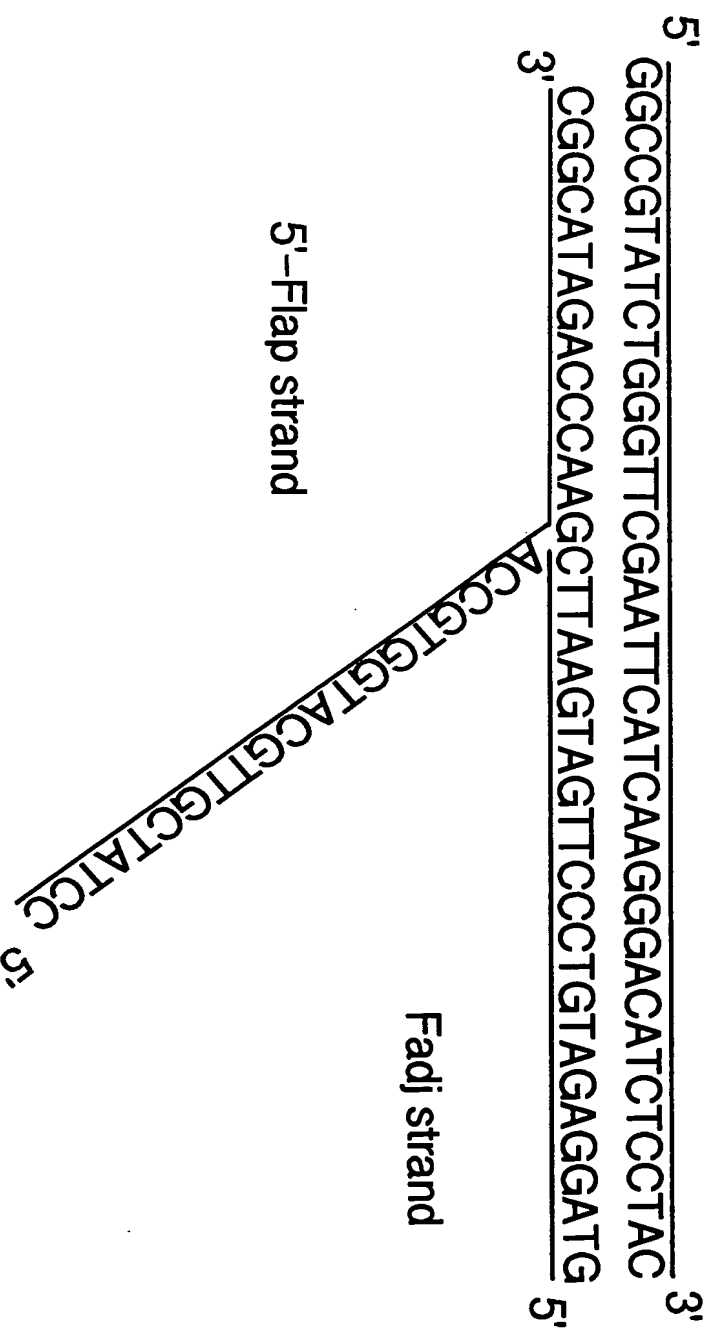
FIG. 7

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NEW FIG. 8

Fbr strand

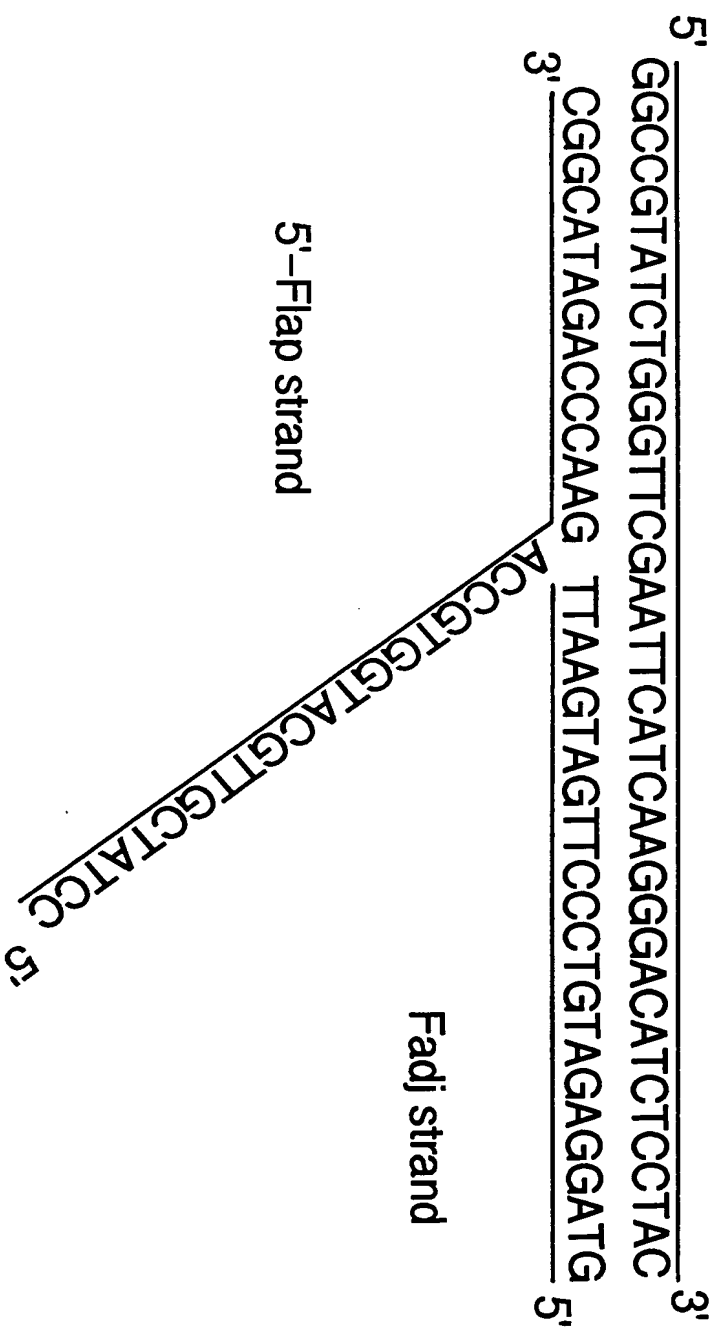


5'-Flap strand

Fadj strand

NEW FIG. 9A

Fbr strand

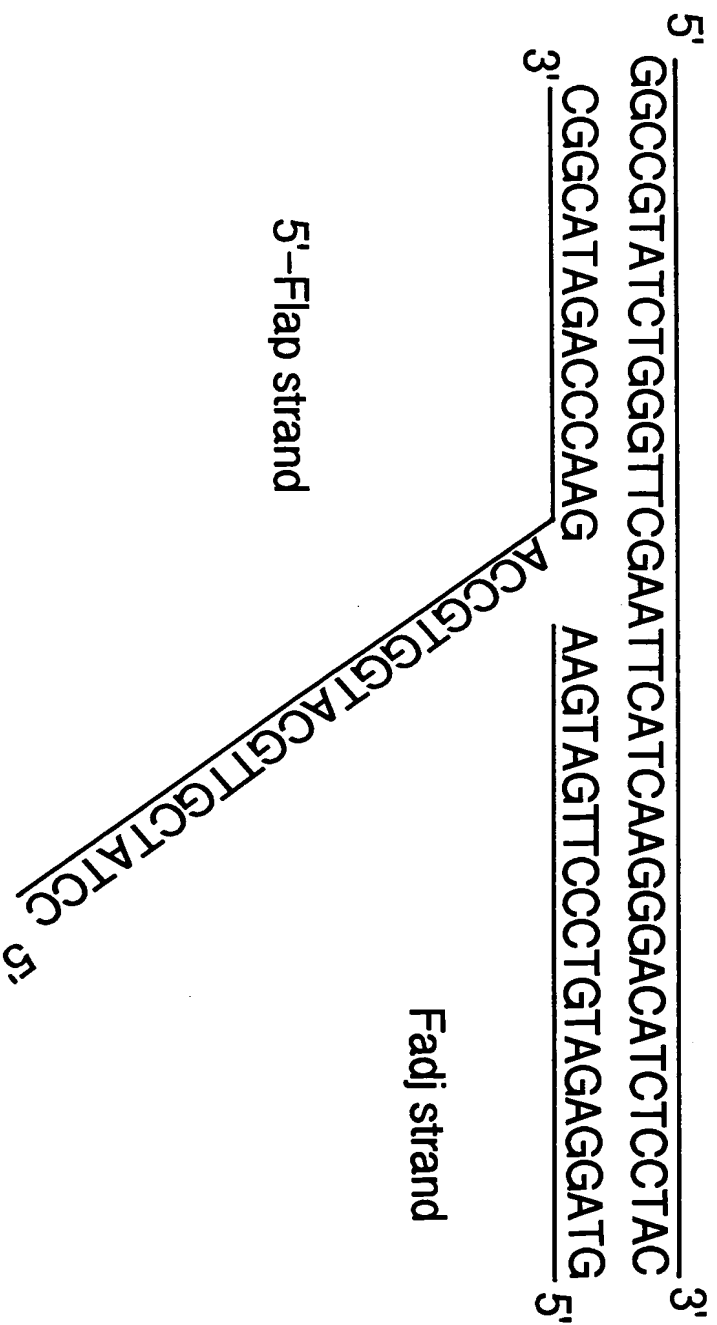


FadJ strand

5'-Flap strand

NEW FIG. 9B

Fbr strand

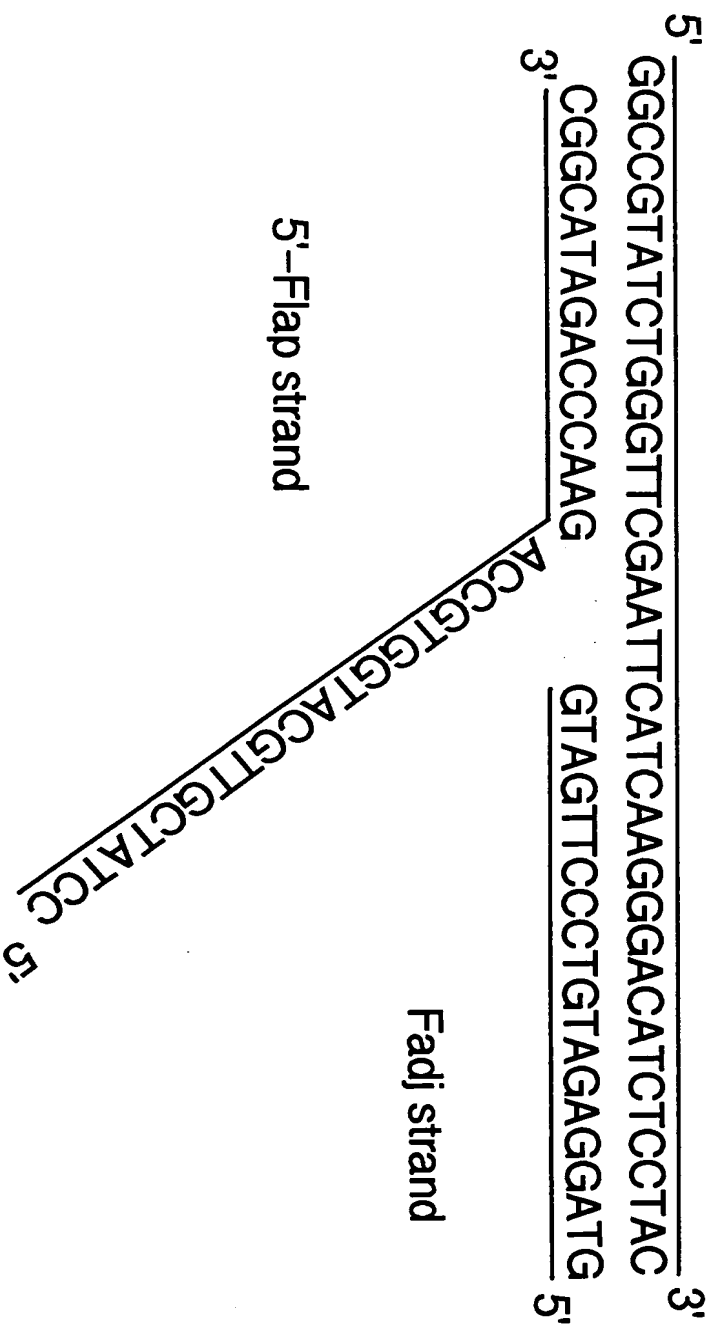


Fadj strand

5'-Flap strand

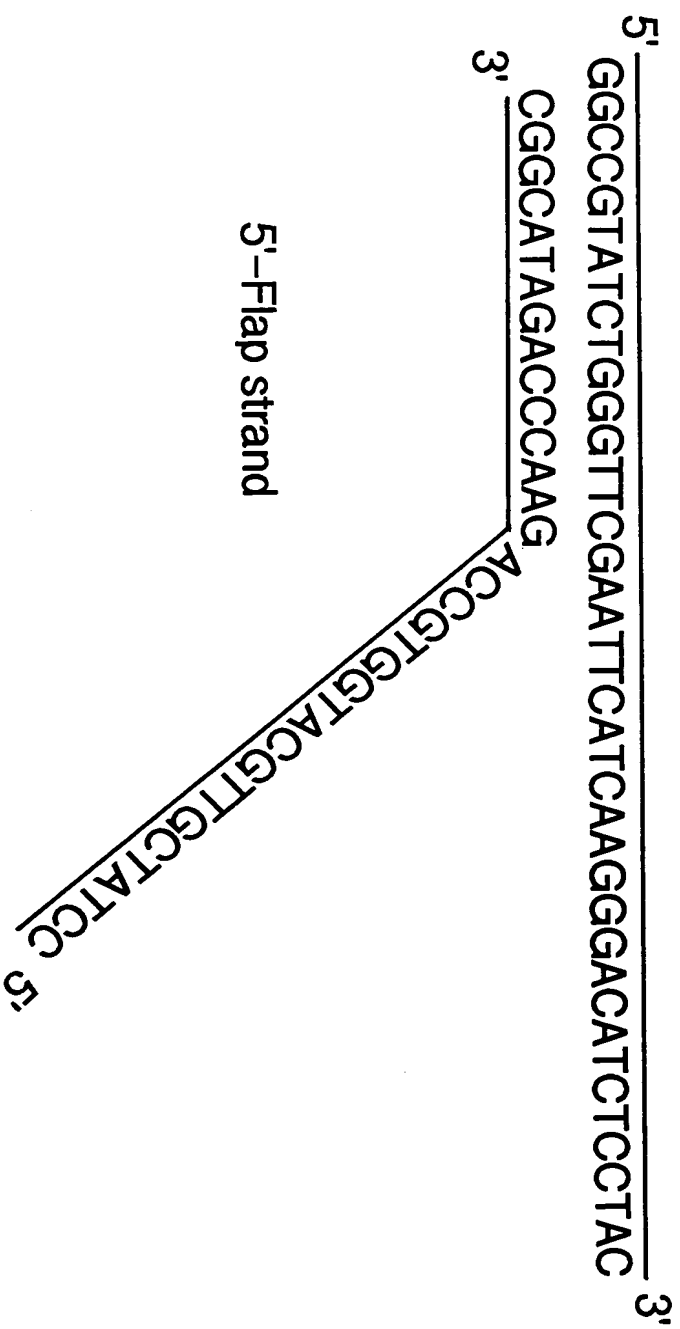
NEW FIG. 9C

Fbr strand



NEW FIG. 9D

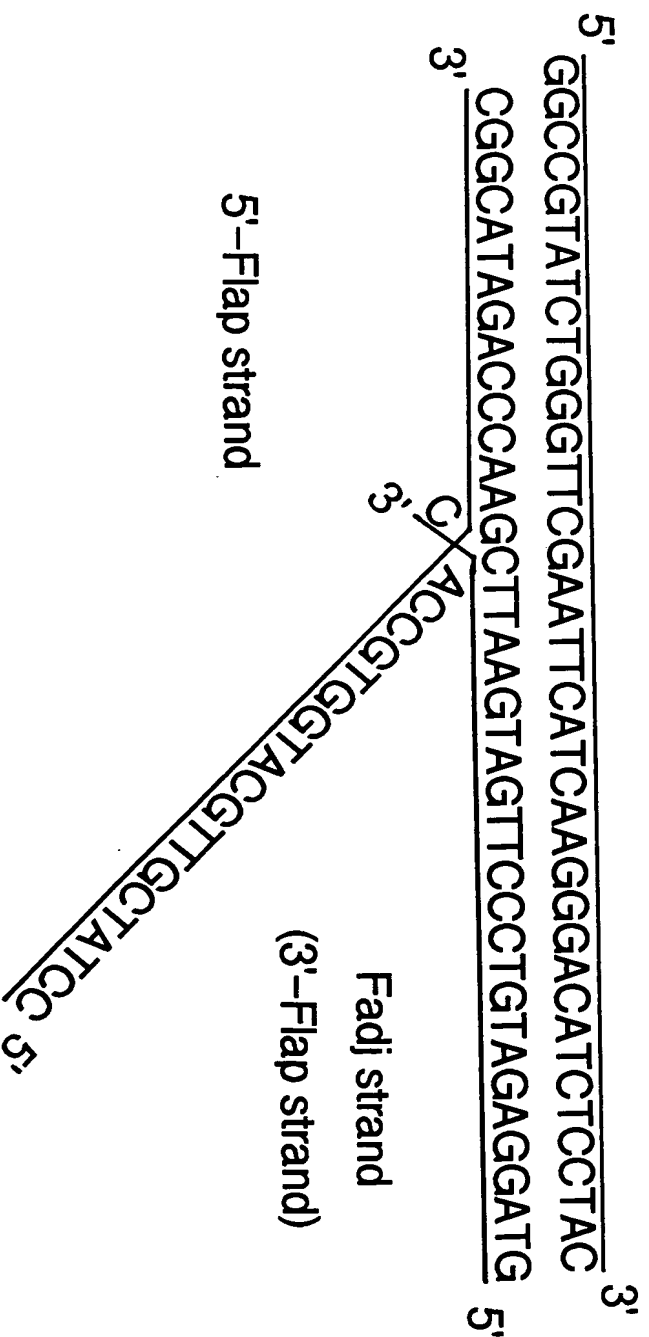
Fbr strand



5'-Flap strand

NEW FIG. 10

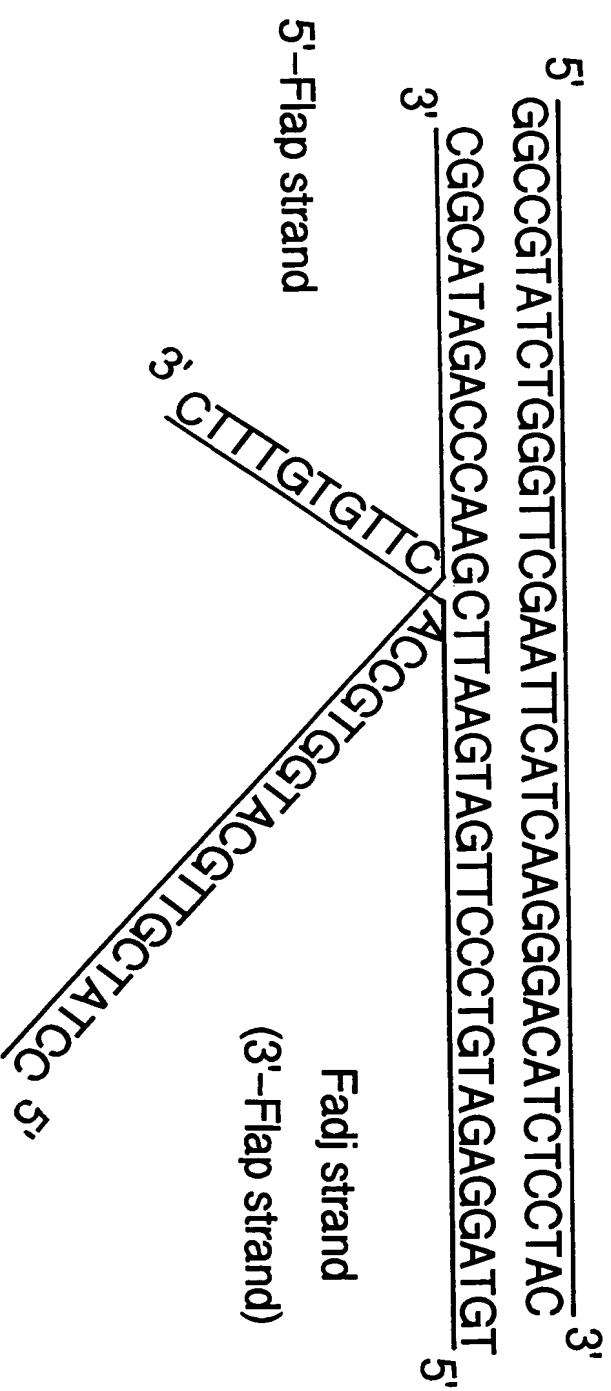
Fbr strand



5'-Flap strand

NEW FIG. 11

Fbr strand



NEW FIG. 12



1 2 3 4 5



Complex

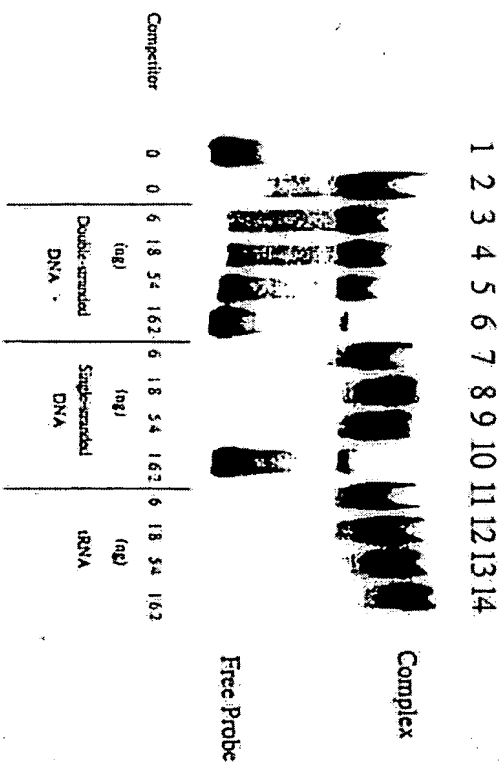
Free Probe

FEN-1 (ng)

0 10 20 40 80

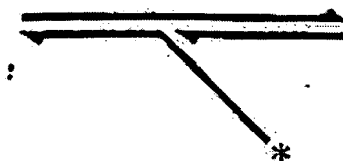
NEW FIG. 13

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NEW FIG. 14

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1 2 3 4 5 6 7 8 9 10 11 12 13 14



Complex



Free Probe

Competitor	0	0	2	6	18	54	2	6	18	54	2	6	18	54
			(ng)				(ng)				(ng)			
			S' Flap Structure				Protein Y-structure				S' Overhang			

NEW FIG. 15

1

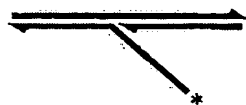
Free Print

Pointe V-Secure
No Fog Speed

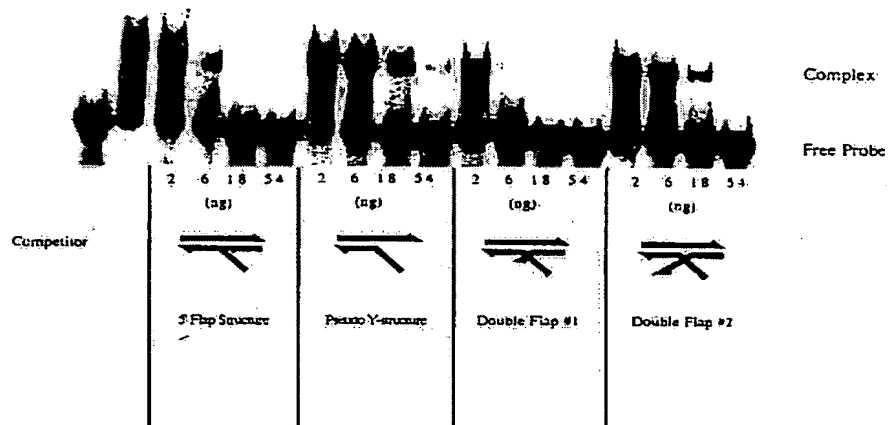


REPORT OF THE

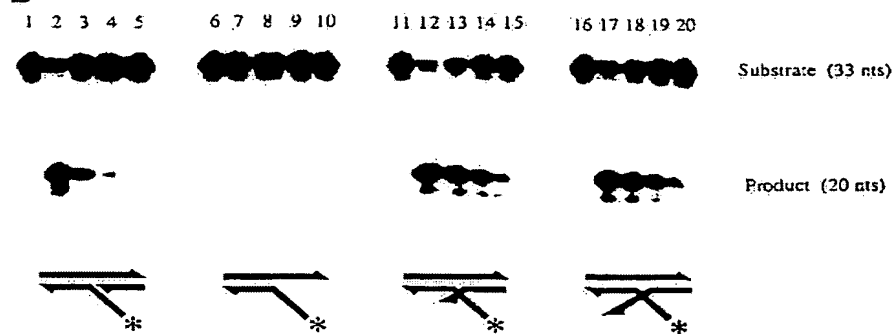
A



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



B



NEW FIG. 17

09586744-060200



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Complex

Free Probe

Competitor 0 0

2 6 18 54
(ng)

2 6 18 54
(ng)

2 6 18 54
(ng)

2 6 18 54
(ng)

NEW FIG. 18

09586744.050200